SIEMENS

MAMMOMAT 1000/3000/3000 Nova - Opdima®

SP

Service

Planning Guide

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Range of application

The digital biopsy and spot imaging system Opdima® for the MAMMOMAT 1000/3000/ 3000 Nova is designed to perform quick and efficient stereotactic needle biopsies and spot localization in near real-time.

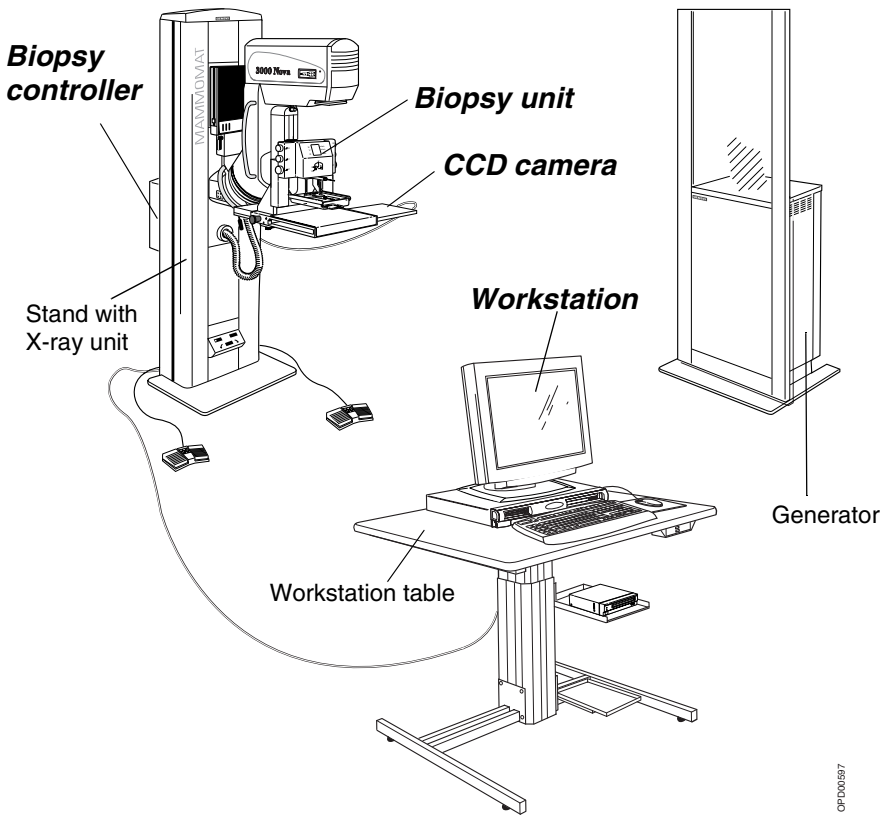
System overview

The Opdima® is an option to the MAMMOMAT and contains four major parts:

- ***CCD camera;*** inserted and mechanically fixed in the biopsy unit or a 18×24 cm object table instead of a film cassette. When the camera is not used it can be stored in an integrated holder on the Biopsy controller.
- ***Biopsy controller;*** serves as a link between the application software, biopsy unit and the CCD camera.
- ***Workstation;*** used for Opdima® managing and control, consist of; application SW, Solaris operating system, Workstation main unit, monitor, keyboard and mouse, magneto-optical drive.
- ***Biopsy unit;*** (for MAMMOMAT 3000/3000 Nova only) identical with Biopsy unit used in Stereotactic Biopsy Attachment.

Workstation table (option)

The workstation table is a motorized vertically adjustable table. Make sure that there are sufficient clearances around the table when the height shall be adjusted.



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General

- Installation of isolation p.c. board D707 (isolation kit part No. 63 96 704) in the generator, if it has not already been done when installing a printer.
- If the DICOM option shall be implemented make sure that a license key from Siemens-Elema AB in Solna, Sweden is ordered. It is also important that a network connection is available on the Opdima® site.

M3000 with serial No. lower than 2091

- The "Stereotactic Biopsy Attachment update" has to be performed according to document RXB7-230.033.02.02....
- Exchange of p.c. board D702 (part No. 64 21 288) in generator.
- Upgrading of the MAMMOMAT 3000 software (generator and stand) to V2.2 or higher, part No. 62 98 769 (if upgrading from a version lower than V1.5, the AEC has to be upgraded, see Update Instruction, UI 01/96).

M3000 with serial No. within the interval 2091 - 3241

- Exchange of p.c. board D702 (part No. 64 21 288) in generator.
- Upgrading of the MAMMOMAT 3000 software (generator and stand) to V2.2 part No. 62 98 769 (if upgrading from a version lower than V1.5, the AEC has to be upgraded, see Update Instruction, UI 01/96).

M3000 with serial No. within the interval 3242 - 5199

- Upgrading of the MAMMOMAT 3000 software (generator and stand) to V2.2 part No. 62 98 769 (if upgrading from a version lower than V1.5, the AEC has to be upgraded, see Update Instruction, UI 01/96).

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CCD camera

Weight; 3 kg

Power supply; 30V DC (from Biopsy controller)

Biopsy controller

Weight; 5 kg

Power supply; 230V AC, 1A
(only internal power supply from MAMMOMAT 3000)

Workstation

Monitor (18.1");

Width × Height × Depth;
464 x 430 x 240 mm

Weight; 10 kg

Main unit;

Width × Height × Depth;
445 × 97 × 445 mm (Sun Blade 150)

Weight; 12 kg

Mains power supply

100, 120; 200 – 240V AC, 50/60 Hz
(from the same branch circuit as the one for MAMMOMAT)
See Page 6 - 1.

Network interface;

Ethernet/Fast Ethernet, twisted pair
standard (10-BaseT and 100-BaseT), RJ-45 type connector
Transfer protocol: TCP/IP from the solaris system.

Cable length;

1,5 m	mains power supply cords
8 m	to Biopsy controller (fixed cable length)
1 m	to MO drive
3,5 m	network cable (can be extended)

MO drive, SONY;

Width × Height × Depth;
210 × 67 × 300 mm

Weight; 4,9 kg

Biopsy unit

Weight; 12 kg

Power supply; 5V DC (only internal power supply from Biopsy controller)

Workstation table (option)

Width x Height x Depth

1000 x 670-1070 x 860 mm

Weight ca 75 kg

Power supply; 230V ± 10%, 50W, 50Hz; EU and Switzerland
110V ± 10%, 50W, 60Hz; USA
100V ± 10%, 50W, 60Hz; Japan

Cable length;

2 m mains power supply cord

Maximal load; 80 kg

Operating environment

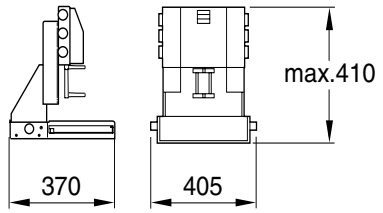
Temperature; +10 – +30°C (+50 – +86 °F) (IEC 601-1)

Humidity; 30 – 75% relative humidity (IEC 601-1)

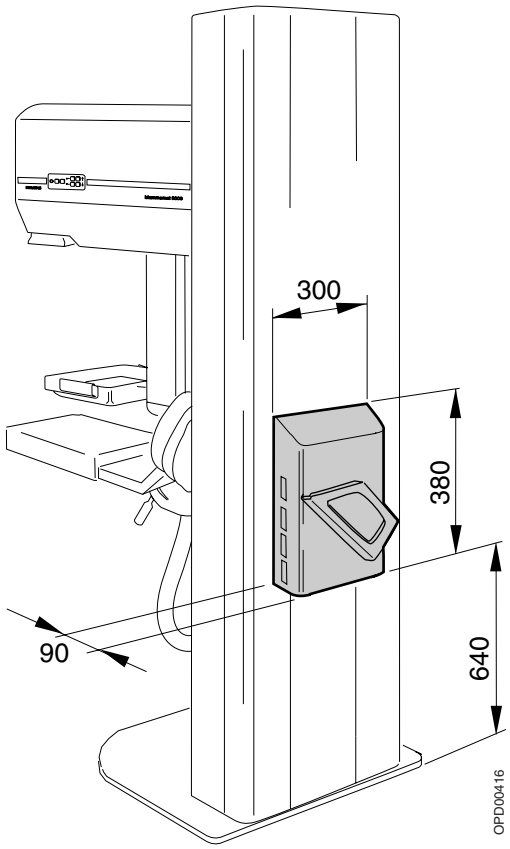
Atmospheric pressure; 700hPa - 1060 hPa

Dimensions

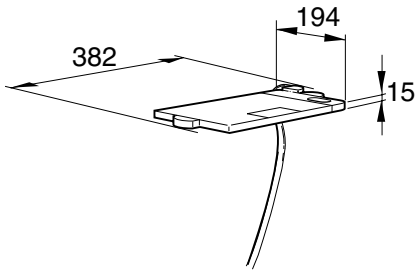
Biopsy unit



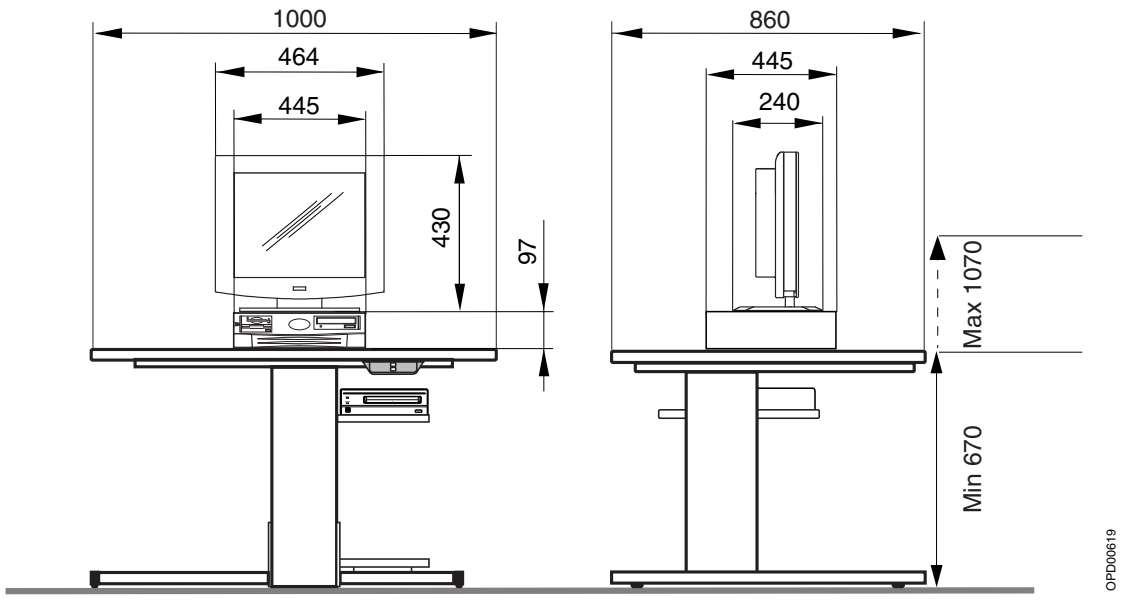
Biopsy controller



CCD camera



Workstation



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Instruction for obtaining the systems host ID and hostname.

1. Switch on the workstation.
2. Log in as service user.
3. Press the **Control**, **Alt**, **Shift** and **!** keys at the keyboard simultaneously.
4. A dialog box saying "Switch to default behaviour ?" will appear.
5. Click OK. The screen will flash for a second.
6. Place the mouse pointer on the screen background and press the rightmost mouse button.
7. Select "New window".
8. Type `hostname` and press Enter.

NOTICE	**Note the hostname (opdXXXX) shown on the screen.**

9. Type `hostid` and press Enter.

NOTICE	**Note the host id (XXXXXXXX) shown on the screen.**

10. Press the Exit key.
11. Press the **Control**, **Alt**, **Shift** and **!** keys at the keyboard simultaneously.
12. A dialog box saying "Switch to custom behaviour ?" will appear.
13. Click OK. The screen will flash for a second.
14. Done!

DICOM (option), checklist;

- A RJ-45 network connector is needed.
- If the distance between the Opdima® workstation and the network connector is longer than 3,5 m (3,5 m cable included in the package) a UTP-5 cable of maximum 50 m is needed.
- The license key to enable the DICOM (option).

  To be able to receive the option DICOM license key SPS-L will request for the serial no. and the host ID for the workstation in question. How to receive these parameters is described in chapter *"Obtaining host ID and hostname" on Page 4 - 1*.

  This license key is written on the invoice and the dispatch note (if not please contact Siemens-Elema AB SPS-L department in Solna, Sweden for further information).
- The Opdima® system needs the following information to be connected to the network:
  IP address: (e.g. 111.121.131.141)
  Netmask: (e.g. 111.121.131.141)
  Default router: (e.g. 111.121.131.141)
  For further information see *DICOM Conformance Statement* for Opdima® ASW 2.0 which is available on intranet.
- Network information about the DICOM nodes which will be connected to the Opdima® system.
  The following information for all DICOM nodes is necessary:
  Hostname: (e.g. opdXXXX)
  IP address: (e.g. 111.121.131.141)
  DICOM Port: 1984 for Opdima
  DICOM AET: (e.g. opdXXXX_SRV)

NOTICE	**XXXX is the serial no. for the workstation. The serial no. is labelled on the cover of the main unit (last four digits). The last four digits of the Hostname consists of the last four digits of the serial no.**

NOTICE	**The parameters hostname, DICOM Port and DICOM AET are fixed.**

Space requirements

NOTICE	**If you are planning a complete MAMMOMAT installation, also see the Planning Guide for MAMMOMAT 300/1000/3000.**

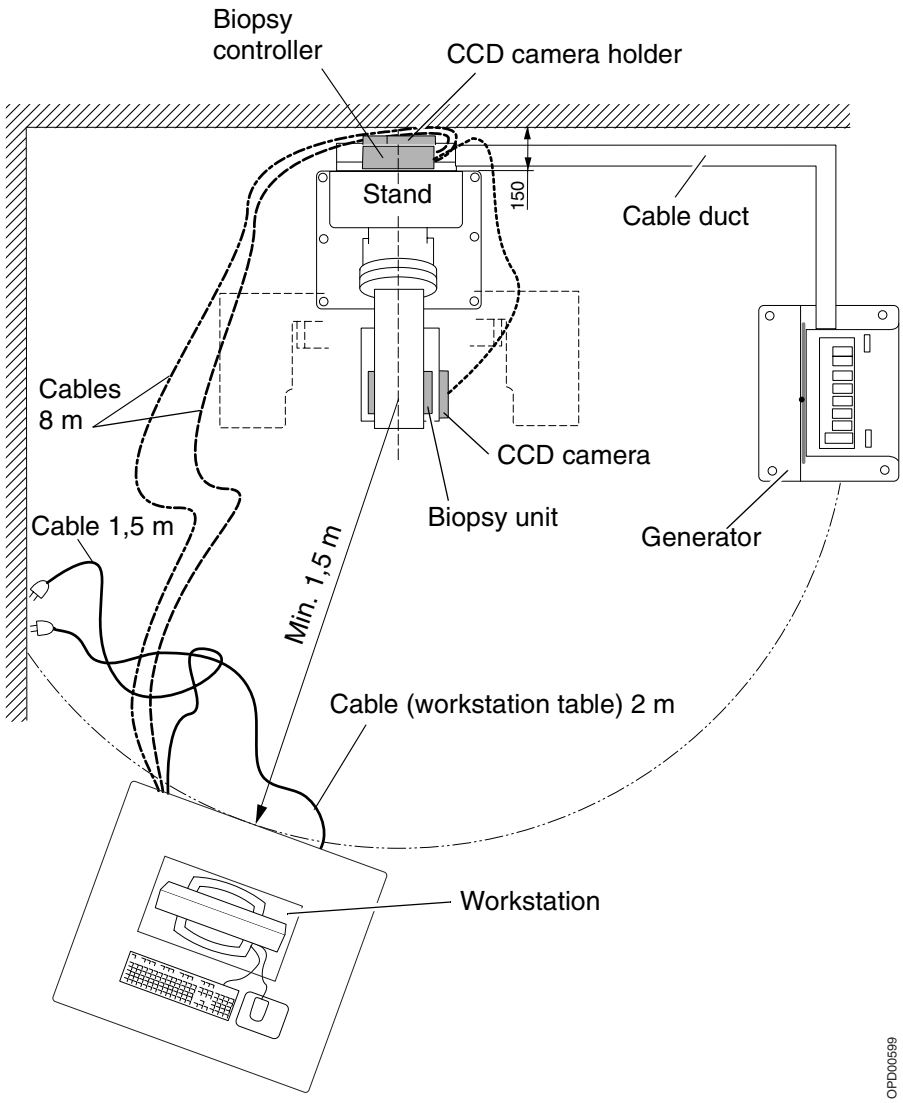

Fig. 1 System site overview

The workstation must be placed outside patient environment of safety reasons, see Fig. 1. Patient environment is determined by IEC 60601-1-1 as 1,5 m away from the patient.

NOTICE	**A space for storing the Biopsy unit should be taken into consideration (dimensions w×d×h= 405 × 370 × 410 mm)**

NOTICE	**There must be enough space around the table so it can be safely vertical adjusted.**

Placing of the monitor

Avoid reflections due to direct sunlight. See Fig. 2.

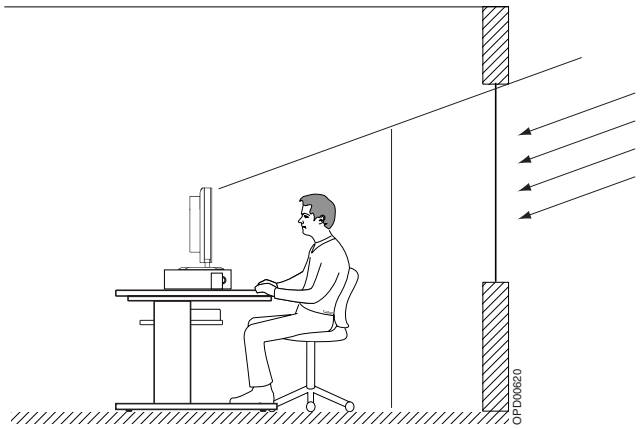

Fig. 2

Avoid reflections due to indirect sunlight reflected from a surface (e.g. a wall). See Fig. 3.

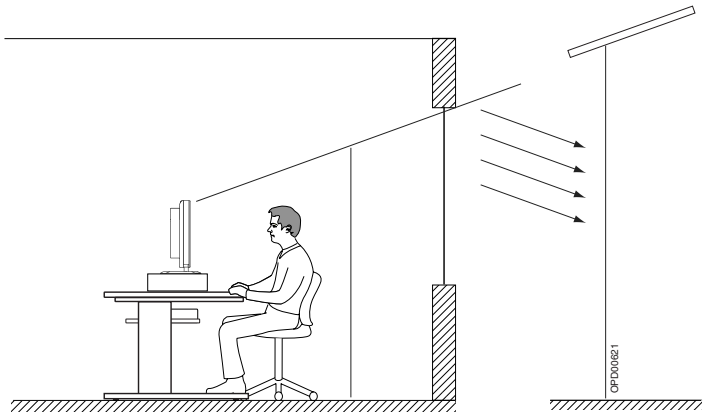

Fig. 3

Avoid reflections from a light source. See Fig. 4.

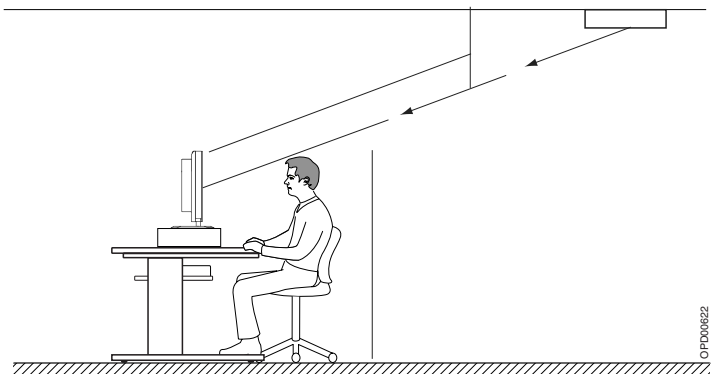

Fig. 4

Proposal for customer's power distribution

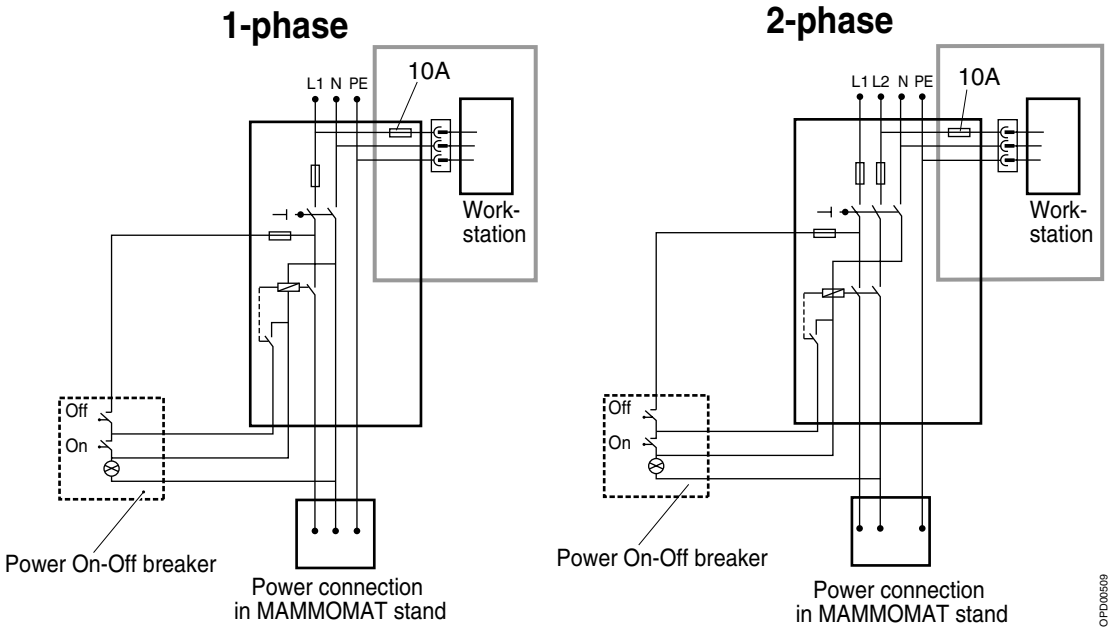

Fig. 1 Power distribution

*1 Grounded wall socket for workstation as well as Opdima® printer and MAMMOMAT printer must be connected to the same branch circuit as the MAMMOMAT and marked with a label. The wall socket must be placed within 4 m from the workstation because of the work station cable length.

*2 20A slow-blow fuse at 110V phase voltage or 10A slow-blow fuse at 230V phase voltage.

Emergency breakers

The Emergency breakers must be installed according to local regulations but must not break the power for the Opdima® dedicated wall outlet.

Power connection

- The Workstation is delivered with country specific set of wall plugs.
- The rest of the Opdima® is powered internally from the MAMMOMAT stand.

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